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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,973	08/02/2001	Robert R. Petrocelli	HEART-001XX	6133
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SALTER & MICHAELSON THE HERITAGE BUILDING 321 SOUTH MAIN STREET PROVIDENCE, RI 029037128			HWANG, JOON H	
			ART UNIT	PAPER NUMBER
			2162	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,973

Applicant(s)

PETROCELLI, ROBERT R.

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. The applicant amended claims 1 and 14-17 in the amendment received on 7/30/04.
2. The pending claims are 1-31.

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 17 have been considered but are moot in view of the new ground(s) of rejection.

The applicants added in claims 1 and 17 the limitations of a patient's medical data, a plurality of external sources, a plurality of information groups on an archival storage media with each group having a unique identification, and the same or different archive systems. These limitations are addressed in the following rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the same or different archive systems" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the archive system" in lines 12-13. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "they" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "they" in line 13. There is insufficient antecedent basis for this limitation in the claim.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-31 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a unique identifier for a archival storage media (DVD) (line 21 on page 11 thru line 8 on page 12), does not reasonably provide enablement for a unique identification for each group stored on a archival storage media. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. At least based on lines 5-6 on page 12 of the specification, "*no two primary DVD copies will have the same identifier*", it is an archival storage media getting a unique identifier, not contents of the archival storage media.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-7, 9-25, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373) in view of Cooke, Jr. et al. (U.S. Patent No. 6,574,629).

With respect to claim 1, Sitka discloses accessing a patient's medical data from a plurality of external sources (lines 16-35 in col. 3, lines 4-30 in col. 4, and item 120-1(x) fig. 1). Sitka discloses associating and grouping the data into an information group for a patient (i.e., an image group containing all of a patient's previous studies, lines 25-33 and 50-63 in col. 2, lines 17-36 in col. 3, lines 31-50 in col. 4, and lines 13-39 in col. 5) concerning segmenting the data into an information group. Sitka discloses storing the information group onto an archival storage media, the information group being stored on the archival storage media with the information group having an identification (i.e., the group associated with a patient's name, a physician's name, personal information, etc, which can be utilized as a unique identification element in order to distinguish the group from other groups (lines 10-15 in col. 3 and line 66 in col. 7 thru line 17 in col. 8)) so that the information group is capable of being independently accessed, within the archive system in which the information group was created (lines 4-24 and lines 34-49 in col. 2, lines 17-36 in col. 3, and lines 3-38 in col. 6). Sitka does not explicitly disclose storing a plurality of information groups onto an archival storage media. However, Cooke

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teaches a folder of studies, wherein each study comprises a series of medical images associated with a patient (i.e., a group of patient's medical images), for the patient (lines 38-47 in col. 8 and lines 15-21 in col. 22), wherein each study has a unique identifier (lines 37-54 in col. 11, table 5 in col. 27, and item 116 in fig. 12) and studies can be merged and split (lines 48-60 in col. 8). Cooke teaches a hierarchical way of organizing patient data (i.e., a folder comprises studies, wherein each study comprises medical images). This teaches a plurality of studies (information groups) stored on an archival storage media by utilizing the teachings of Cooke to the system of Sitka. Furthermore, the unique identifier for each study associated with a patient distinguishes a study from the other regardless of a location of the study in archive storage systems. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Cooke, studies of a patient, wherein each study is associated with a unique identifier, to the system of Sitka in order to efficiently manage each distinctive study of a patient.

With respect to claim 2, Sitka discloses optical disks (DVDs) as archival storage media (lines 31-50 in col. 4).

With respect to claim 3, Sitka teaches archiving a study of a group associated with a customer's specific information, such as the customer's name, a physician's name, medical history, and personal information on archival storage media (lines 22-38 in col. 1, lines 10-15 in col. 3, and line 66 in col. 7 thru line 17 in col. 8) in order to provide more information about a group besides images of the group concerning a self-contained database file.

With respect to claim 4, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses the DICOM protocol for communication. Sitka does not explicitly disclose DICOM-3. However, Cooke uses the DICOM-3 protocol for communication (line 65 in col. 5 thru line 13 in col. 6 and lines 10-23 in col. 15). Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the DICOM-3 protocol of Cooke to the system of Sitka for another way of communication.

With respect to claim 5, Sitak discloses a customer's name, a physician's name, and a modality type, which teach meta-data, and image data in a group (lines 10-35 in col. 3).

With respect to claim 6, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses a PACS for a picture archiving and communicating system (line 13 in col. 1 thru line 24 in col. 2). Sitka does not explicitly disclose an image player in archival storage media. However, Cooke discloses a PACS software and applications preferably stored in memory and alternatively these applications can be stored in a floppy disk or a CD (lines 41-67 in col. 7 and lines 1-33 in col. 8) for retrieving image data. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Cooke's teachings of storing applications for retrieving image data in a CD to the system of Sitka for an alternative way of storing applications for retrieving data.

With respect to claim 7, Sitka discloses the claimed subject matter as discussed above. Sitka further discloses retrieving a group containing all of a customer's previous

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studies and associated metadata, such as the customer's name, a physician's name, a modality type, and medical history (lines 13-38 in col. 1, lines 10-35 in col. 3, lines 31-50 in col. 4, and line 66 in col. 7 thru line 17 in col. 8). Sitka does not explicitly disclose an application for interpreting metadata in archival storage media. However, Cooke discloses a PACS software and applications preferably stored in memory and alternatively these applications can be stored in a floppy disk or a CD (lines 41-67 in col. 7 and lines 1-33 in col. 8) for retrieving data. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize Cooke's teachings of storing applications for retrieving data in a CD to the system of Sitka for an alternative way of storing applications for retrieving data.

The limitations of claims 9 and 27 are rejected in the analysis of claim 6 above, and these claims are rejected on that basis.

With respect to claim 10, Sitka discloses recording information groups on archival storage media as mid-term (near-line) and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

With respect to claim 11, Sitka discloses short-term (on-line) storage as a first subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 12, Sitka discloses mid-term (near-line) storage as a second subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 13, Sitka discloses long-term (off-line) storage as a third subset of archival storage media (lines 3-38 in col. 6 and fig. 2).

With respect to claim 14, Sitka discloses a diskette (lines 31-40 in col. 4), which teaches a hard disk element.

With respect to claim 15, Sitka discloses a jukebox storage (lines 39-45 in col. 1).

With respect to claim 16, Sitka discloses a shelf storage (lines 3-38 in col. 6).

The limitations of claim 17 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 18, Sitka discloses a personal computer (lines 16-35 in col. 3 and figs. 1-3).

With respect to claim 19, Sitka discloses a workstation for the external source (lines 16-35 in col. 3, lines 4-30 in col. 4, and figs. 1-3).

With respect to claim 20, Sitka discloses a network compatible device for the external source (lines 16-35 in col. 3, lines 4-30 in col. 4, and figs. 1-3).

With respect to claim 21, Sitka discloses short-term (on-line) storage, mid-term (near-line) storage, and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

With respect to claim 22, Sitka discloses a diskette (lines 31-40 in col. 4), which teaches a hard disk element.

With respect to claim 23, Sitka discloses the claimed subject matter as discussed above except a redundant array of independent disk. However, Cooke discloses a redundant array of independent disk (RAID) for archival storage media (lines 10-64 in col. 9) for an alternative storage. Therefore, based on Sitka in view of Cooke, it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to utilize RAID of Cooke to the system of Sitka for alternative archival storage media.

With respect to claim 24, Sitka discloses a jukebox storage (lines 39-45 in col. 1).

With respect to claim 25, Sitka discloses a shelf storage (lines 3-38 in col. 6).

With respect to claim 28, Sitka discloses optical disks (DVDs) as archival storage media (lines 31-50 in col. 4).

The limitations of claim 29 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

The limitations of claim 30 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

With respect to claim 31, Sitka discloses recording information groups on archival storage media as mid-term (near-line) and long-term (off-line) storage (lines 3-38 in col. 6 and fig. 2).

10. Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sitka et al. (U.S. Patent No. 6,349,373) in view of Cooke, Jr. et al. (U.S. Patent No. 6,574,629), and further in view of Jian et al. (U.S. Patent No. 6,199,072).

With respect to claim 8, Sitka and Cooke disclose the claimed subject matter as discussed above except an index file on archival storage media. However, Jian discloses an optical disk (an archival storage medium) containing a created archive directory file for an index of data stored on the disk (lines 52-58 in col. 2, line 1 in col. 3 thru line 13 in col. 4, and fig. 2). Therefore, based on Sitka in view of Cooke, and

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further in view of Jian, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the archive directory file of Jian to the system of Sitka in order to have archival storage media containing indexed and organized information.

The limitations of claim 26 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang 
Patent Examiner
Technology Center 2100

2/2/05


JEAN M. CORVELUS
PRIMARY EXAMINER